

CLAIMS

1. A backup system for a database, the backup system being operable to:
 - store a preceding checkpoint containing the contents of the database,
- 5 receive at least one transaction log, the at least one transaction log identifying changes to the contents of the database,
 - generate a new checkpoint by merging the preceding checkpoint and the at least one transaction log,
- 10 and store the new checkpoint.
- 15 2. A backup system according to claim 1 operable to sort the or each transaction log prior to merging the or each transaction log with the preceding checkpoint.
3. A backup system according to claim 2 operable to receive a plurality of transaction logs, and wherein the transaction logs are sorted to combine the transaction logs prior to merging the transaction logs with the preceding checkpoint.
- 20 4. A backup system according to claim 2 or claim 3 comprising a data storage medium and a memory, wherein the checkpoint is stored on the data storage medium and the or each transaction log is sorted in the memory.
5. A backup system according to any one of the preceding claims operable to store at least one transaction log prior to generating a new checkpoint.

6. A data handling system comprising a backup system according to any one of the preceding claims and a database system, the database system comprising a memory, and being operable to store a database in the memory, the database system being operable to update the database in response to a transaction, record the transaction in a log, and transmit
5 the transaction log to the backup system.
7. A data handling system according to claim 6 wherein the backup system is operable to transmit the checkpoint to the database system to rebuild the database.
- 10 8. A data handling system according to claim 7 wherein the backup system is operable to store at least one transaction log after generation of the checkpoint and wherein the backup system is operable to transmit the at least one transaction log to the database system with the checkpoint.
- 15 9. A data handling system according to claim 6 or claim 7 or claim 8 further comprising a management system, the management system comprising a data storage medium wherein a copy of the database is stored, the backup system being operable to transmit the checkpoint to the management system.
- 20 10. A method of generating a checkpoint for a database, the method comprising the steps of;
receiving at least one transaction log, the at least one transaction log identifying changes to the database, and
merging the transaction log with a preceding checkpoint to generate a new
25 checkpoint.

11. A method according to claim 10 comprising the step of sorting the or each transaction log prior to the step of merging the or each transaction log with the preceding checkpoint.